

Snecma, the multi-faceted, state-owned French aerospace engine and equipment manufacturer is currently investing in numerous projects of potential long-term interest for American aerospace suppliers. The company, headquartered in Paris, employs 36,860 people worldwide, and is expanding its global presence through acquisitions and partnerships.

While Snecma is currently owned by the French government, at the 2001 Paris Airshow, former French Prime Minister Lionel Jospin had announced a 25% liberalization of Snecma's capital through privatization. After the September 11th attacks, however, the proposed shares were withheld from the uncertain market indefinitely and the French Government continues to control 97% of Snecma. United Technologies and individual investors account for the remaining 3%. It is expected that the company will be privatized when the market conditions are considered appropriate.

The company has several divisions, including:

- Snecma Moteurs (rocket and turbine power plants for aircraft and space launch vehicles),
- Snecma Service (a Maintenance, Repair and Overhaul operator not limited to Snecma products),
- Techspace Aero (a manufacturer of engine components and test equipment),
- Turbomeca (helicopter turbines),
- Microturbo (small jet engines for missiles, drones and auxiliary power units),
- Hurel-Hispano (nacelles and thrust reversers),
- Hispano-Suiza (power transmissions),
- Snecma Control Systems (computerized engine control),
- Labinal (wiring and equipment),
- Messier-Dowty (landing gear),
- Messier-Bugatti (brakes),
- Messier Service (landing gear MRO),
- Cinch (connectors for applications in several industries) and
- Globe Motors (an Ohio-based electric motor manufacturer).

Snecma Moteurs

Snecma Moteurs is the largest division of Snecma. Based in Paris, it is responsible for providing propulsion systems for commercial, military, and space applications around the world. With 13,261 employees and sales of 3.5 billion Euros in 2001, this division represents 77% of Snecma's propulsion business.

Snecma Moteurs is participating in General Electric Aircraft Engines and Pratt & Whitney's 'Engine Alliance' joint venture. The 'Engine Alliance' was formed to develop the GP7000 engine for the new Airbus super jumbo A380. Snecma will supply the high-pressure compressor to the GP7000. Snecma claims that its contribution

represents 10% of the engineering in the new engine. FedEx, Air France and Emirates Airlines have also already selected the GP7000 for their A380 fleets.

In the rocket propulsion division, Snecma Moteurs produces the engines for the Ariane space launch vehicles. It is currently developing its Vinci cryogenic engine for use on the Ariane 5. The Vinci engine is expected to increase Ariane payloads to 11,000 kilograms by 2006. The engine can also be restarted in mid-flight and develops thrust rated at 180 kN.

CFM International

One of Snecma's largest projects is to help with the design upgrade of the widely used CFM56 Turbofan engine. The engine is produced by a 50-50 joint venture between Snecma Moteurs and General Electric Aircraft Engines formed in 1974 and headquartered in Cincinnati. The CFM56 features the GE CF6 core (compressor and high-pressure turbines originally developed for the B-1 bomber) and Snecma-developed fan and low-pressure turbines. The CFM56 is found in short- to medium-haul applications in both Airbus and Boeing airframes. The venture delivered 1,047 variants of the CFM56 in 2001, making 12,600 engines delivered in total.

CFM International has 333 customers for the CFM56. The single largest is the United States Air Force, which has chosen the CFM56 to re-engine the KC-135 tanker, RC-135 reconnaissance, and E-6 Early Warning aircraft.

TP400

A long-term project at Snecma currently garnering press attention is Snecma's contribution to the propulsion bid for the pending A400M European tactical military transport to be built by the military division of Airbus. A revision to the requirements for the transporter's four turboprops resulted in the dissolution of the Aero Propulsion Alliance (APA) in early 2002. The Alliance had consisted of FiatAvio (Italy), ITP (Spain), MTU Aero Engines (Germany), Rolls Royce (UK and Germany), Techspace Aero (Belgium – partly owned by Snecma Group) and Snecma Moteurs.

The multi-national consortium has been replaced by Euro Prop International (EPI), which was formed by Rolls-Royce and includes the same players as before, minus Techspace Aero (to consolidate management) and FiatAvio (Italy has dropped out of the A400m project). EPI does not necessarily plan to use Snecma Moteurs' M88 core (found in the Rafale fighter) combined with Rolls Royce's triple-shaft technology (as had been the case with the previous alliance). The new core is likely to be developed jointly between Snecma and Rolls Royce. Snecma, through subsidiary Hispano-Suizo, is now competing to fill a hole left by FiatAvio to build the engine's gearbox. Executives at EPI are quick to note that the engine, dubbed TP400, will employ existing technology to meet Airbus deadlines.

Snecma Services

Snecma, through Snecma Services, plays a role in the worldwide maintenance, repair and overhaul (MRO) industry. This division, headquartered in Paris, had sales of 368 million euros in 2001, and employs 2,661. The year 2001 also saw the opening of three new sites in France at Chatellerault, Montereau, and Saint-Quentin.

In 2001, Snecma Services' share in the repair market for the CFM56 engine grew to 15%. Snecma Services also acquired FAA certification as the sole CFM56 MRO operator in the Chinese market, and has recently bought 100% of the bankrupt Sabena Engine Services. Snecma had been operating a 50/50 joint venture with the Belgian company. Together with another Snecma division, Techspace Aero, Snecma Services has acquired a majority stake of Miami-based Propulsion Technology.

Techspace Aero

Techspace Aero, an engine component manufacturer and tester had sales of 85 million Euros in 2001. Unlike other divisions, Techspace Aero is only partly owned by Snecma and is headquartered outside of France, in Herstal Milmort, Belgium.

Techspace Aero's product is the manufacture, maintenance, repair and overhaul of engine components. Its American customers include Pratt & Whitney, GE and Honeywell, as well as the US Air Force. Its work for the Air Force is mostly in the MRO sector, recently overhauling the F100 core found in the Air Force's fighters.

Techspace Aero is also involved in testing the venerable CFM56 engine and is recognized by Snecma as the group's "Center of Excellence" for engine test stands.

Turbomeca

Turbomeca earned 586 million Euros for Snecma in 2001, selling turbine engines for rotary and training applications. It is the world's largest manufacturer of helicopter engines. Together with its subsidiary Microturbo (which produces small jet engines for missiles, drones, auxiliary power units, and starting systems), Turbomeca employs almost 5,000 people. The company is headquartered in Bordes, France, near the city of Toulouse, where Microturbo is located.

In 2001, Turbomeca signed a contract with Eurocopter to power their new EC135 with Arrius 2B2 turbines. Finland, Sweden and Norway selected the RTM 322 for their NH-90 military transport helicopters, and Denmark, Portugal, England and South Africa selected Turbomeca to power their fleets as well. Turbomeca is also reengineering Chinese Z11 helicopters.

Hurel-Hispano

Hurel-Hispano, located in Meudon-la-Forêt, France, produces engine nacelles and thrust reversers. It is the product of merger between Hispano-Suiza's aerostructures division and Hurel-Dubois. Although 2001 was the first year of operations for the newly merged Hurel-Hispano, the company has already secured its place in the market with several key contracts, most notably for the Airbus family.

Hurel Hispano will produce the nacelles for both engine options on the new A380, through a contract awarded to its recently created subsidiary, Aircelle. Aircelle was previously owned equally between Snecma and Airbus Industrie. Hurel-Hispano has already delivered components to the newest Airbus aircraft: thrust reversers for the A340-500 and A340-600, and nacelles and thrust-reversers for the A318.

Dassault Aviation, the French business jet manufacturer has chosen Pratt & Whitney engines equipped with Hurel-Hispano nacelles for its newest jet, the Falcon 7x. MHD, an equally owned subsidiary of Hurel-Hispano and Aermacchi of Italy, has also won contracts from Embraer (Brazil), Fairchild-Dornier (Germany) and Bombardier (Canada) to produce nacelles and thrust-reversers for their regional jets.

Hispano-Suiza

Hispano-Suiza, a power transmissions manufacturer headquartered in Colombes, France, expanded its sales of power transmissions 20% to 1,650 units in 2001, representing a value to Snecma of 66 million Euros. The division also expanded its workforce to 1,055 employees.

Hispano-Suiza manufactures power transmission systems for several applications, including the Rolls-Royce Trent 500 turbofans powering the new A340-500/600. The company was also selected as part of the team to supply the TP400 turboprop that will be found on the new A400M. Technical improvements were made in 2001 to the power transmissions already found on the Gulfstream V business jet and Rafale multi-role fighter.

In addition to power transmission, the company manufactures turbochargers for large diesel engines (booking 150 orders in 2001) and signed a contract in 2001 with Petrobras (the Brazilian state oil company) to handle turbine maintenance on off-shore oil-rigs.

Snecma Control Systems

Snecma Control Systems (SCS) is the division of Snecma Moteurs responsible for producing about 45% of the equipment found on the TP400 turboprop engine destined for the A400M tactical military transport. The company makes computer controls for engines, hydro-mechanical units and wiring harnesses.

The company will also be manufacturing computer control systems for the Pratt & Whitney PW6000 business jet engine family when it takes control of Messier-Dowty

Electronics in Canada. SCS has won contracts for control systems of both engines designed for the Airbus A380, the Rolls-Royce Trent 902 and the Engine Alliance GP7200.

In the MRO sector, revenues increased 10% in 2001, and the company recognizes MRO as a prime avenue for future growth.

Messier-Dowty

Messier-Dowty makes landing gear for civil and military aircraft, earning revenues of 645 million Euros in 2001 and employing 2,814 people. The company operates out of Vélizy, France, not far from Paris.

Messier-Dowty, like other divisions of Snecma, is heavily involved in Airbus production, supplying landing gear to all aircraft in production, including the new A340-600. It will be supplying nose landing gear to the new A380, though the contract for the main gear was awarded to an American firm, Goodrich. Other recent contracts awarded were to Dassault's Falcon 7x and the Korean T-50 trainer. In 2001, Messier-Dowty teamed-up with Hydromash of Russia to produce gear for large transport aircraft.

In addition to civil and business manufacturers, Messier-Dowty worked with Boeing on their proposed Joint Strike Fighter, was a member of the Boeing JSF One Team, and has been named a "Preferred Supplier" by Boeing. Messier-Dowty has experience in this field, as it already supplies landing gear to the Eurofighter.

Messier-Dowty, in conjunction with Messier-Bugatti, has set up an international MRO network for landing gear, wheels, and brakes, known as Messier Services. The new unit has facilities in Europe, the Americas, and Asia. Messier Services has over 750 client airlines and earned revenues of 105 million Euros in 2001.

Messier-Bugatti

Messier-Bugatti complements Messier-Dowty's contribution of landing gear in the Snecma group with the manufacture of wheels and brakes. The division had 354 million Euros in Sales in 2001, and 1,724 employees. Its headquarters are in Vélizy, near Paris.

Messier-Bugatti is also a Boeing preferred supplier for carbon brakes and has been working with Airbus since its conception. The company's brakes are found on all 12 wheels of the new A340-600, but the A380 contract was awarded to a Honeywell/Dunlop partnership. Boeing chose Messier-Bugatti brakes for the C-17 Globemaster and the 777-300ER widebody twin. For the C-17, the brakes are Messier-Bugatti SepcarbIIIs manufactured by its American subsidiary A-carb. This company employed 75 Americans in 2001.

The company also manufactures hydraulic systems, notably for the new A340-500/600 family, which employs Messier-Bugatti actuators for the thrust reverser, landing gear, nosewheel steering and gear door actuation systems.

Labinal

Labinal has supplied aircraft wiring out of Montigny Le Bretonneux near Paris to companies worldwide for 80 years. The company contributed 356 million Euros in sales to the Snecma group for 2001 and employs 4,805 people. Primary customers for Labinal are aircraft manufacturers, both civil and defense (Airbus, Boeing, Dassault, Bombardier, Lockheed Martin and Eurocopter), but it has also has products aboard high-speed trains, such as the TGV in France. All wiring for the nose and center section of the Airbus A380 will be manufactured by Labinal, who also makes 40% of all commercial electrical seat actuators in the world.

Labinal has support centers in the United States, France and Singapore, and has recently expanded production at its plants in Pryor, Oklahoma and Chihuahua, Mexico. In 2001, Labinal established a joint venture with Boeing and Royal Air Maroc to produce wiring in Morocco, and acquired Teuchos, a French high-tech engineering company.

Cinch

Cinch produces connectors for Europe, Africa, the Americas and Asia, and has subsidiaries in Japan, India, China and Argentina. Its European headquarters is in Montigny Le Bretonneux while its North American base is in Lombard, Illinois. Cinch contributed 154 million Euros to Snecma's consolidated sales and employed 1,661 people in 2001. The company produces connectors for aircraft, missiles, automobiles and other applications. Its clients include Boeing, MBDA (the European missile manufacturer), Peugeot Citroën, Renault Nissan, Fiat, Lear, Allocate and IBM.

Conclusion

Snecma is the leading aerospace equipment manufacturer in France, and one of the most important in Europe, with a dominant position in providing key systems to Airbus, Eurocopter, Dassault and Ariespace, among others, both in civil and military applications. It also has important links to the U.S. market and U.S. companies, both as a supplier, and as an equity partner or owner. Given its position as a world-class manufacturer in several categories, U.S. suppliers should consider Snecma, and its various divisions, as an important potential client, for both OEM and MRO.

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